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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,378	12/20/2001	Barghav R. Bellur	SRI-006A (7565/9)	3543

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EXAMINER	
TRAN, PHUC H	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/029,378	BELLUR ET AL.	
	Examiner	Art Unit	
	PHUC H. TRAN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *21 and 22* is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 8-13, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Melnik (U.S. Patent No. 6046978).

- With respect to claims 1-3, Melnik teaches a method for use by nodes to route packet traffic through a multiple-hop wireless communications network (e.g. the method for configuring a wireless network and routing data within a wireless multihop network), the method comprising:

detecting interference with packet-switched communications carried by radio frequency (RF) over the multiple-hop wireless communications network (col. 7, lines 23-24); and

determining, in response to information related to the detected interference, a route for transmitting packets through the multiple-hop wireless communications network that mitigate the effect of the interference on the packets, wherein determined route excludes the node (col. 7, lines 26-30).

- With respect to claims 4, and 16-18, Melnik also teaches the steps of approximating a geographical location of a source of the interference, and wherein the determined route excludes one or more nodes nears that location (col. 11, lines 38-42)

- With respect to claims 8,10 and 12, Melnik further comprises operating a protocol at a physical layer of a protocol stack that detects the interference (e.g. the detection of faulty link).

- With respect to claims 9, 11 and 13, Melnik teaches wherein the step of determining a route is preformed by a network layer protocol in the protocol stack in response to a notification from the physical layer protocol of the interference (see col. 6, lines 40-53).

- With respect to claim 19, Melnik discloses identifying a source of the interference to be a node in the multiple-hop wireless communications network, calculating a cost function for a plurality of routes from a sending node to a destination node that exclude the interfering node, and selecting the route with a lowest cost function (e.g. Fig. 1 and Fig. 4 discloses the cost function for reroute the path).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melnik.

- For Claims 5-7 and 20, Stine discloses all the subject matter of the claimed invention with the exception of determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf in a communications network. However, determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and

homerf are well-known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf in the communications network of Stine.

The determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf can be implemented/modified into the network of since it does teach accessing and routing protocol. The motivation for using determining that signals received by a node are of unauthorized protocol / source and invalid information; and one of the protocols selected from the group consisting of 802.11, Bluetooth, hyperlan and homerf into the communications network of Stine being that it provides much higher utilizations while maintaining the guaranteed QoS and provides security for the network.

5. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melnik in view of Hwang et al. (U.S. Patent No. 6671265 B1)

- With respect to claims 14-15, Melnik discloses all the aspect of the claimed invention as set forth above but fails to teach adjusting an antenna pattern of a node in the wireless communications network in response to detecting the interference. Hwang teaches adjusting the antenna in response to detecting the interference (col. 2, lines 50-60). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to

implement the technique of adjusting the antenna for reducing the interference in the communications network.

Allowable Subject Matter

6. Claims 21-22 are allowed.

Response to Arguments

7. Applicant's arguments filed 9/6/2006 have been fully considered but they are not persuasive.

In response to Applicant's argument that Melnik fails to teach or suggest the novel invention of determining, at any node in the network, a route for transmitting packets that mitigates the effects of a detected interference source in response to information related to the detected interference" in page 1. Examiner respectfully disagrees with Applicant. In claim 1, "the method for use by nodes route packet traffic" is not specified to a node but any node can be routing the packet traffic, therefore the control node of Melnik is also consider as the node for routing the packet traffic. As Examiner understands the invention of claim 1, that is in response to the detected interference in the communication, the packet traffic is rerouted to reduce the interference. Melnik teaches the step of detecting any unsuccessfully transmitted packets and changing the routing of unsuccessfully transmitted packet to a new routing. Therefore, Melnik teaches all the limitation of claim 1.

In response to Applicant's argument that "a failed node is not the same as a node that actively interference with a network communication". Examiner respectfully disagrees because the limitation "actively interference with a network communication" does not teach in claim 1.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuc Tran
Assistant Examiner
Art Unit 2616

P.t
11/13/06

CHI PHAM
SUPERVISORY PATENT EXAMINER 11/13/06